

RCRA REVISION CHECKLIST 179 - REVISED

Land Disposal Restrictions Phase IV -- Technical Corrections and Clarifications to Treatment Standards 64 <u>FR</u> 25408-25417 May 11, 1999 (RCRA Cluster IX, HSWA/non-HSWA provisions)

Note that the revisions to 262.34(d)(4), 268.2(h), 268.2(k), 268.7(a)(4)/table, 268.7(b)(3)(ii)/Table, 268.7(b)(4)(iv), 268.9(d)(2) intro, 268.9(d)(2)(i), 268.40(i), 268.40(j), 268.40/Table, 268.48(a)/Table, 268.49(c)(3) intro, 268.49(c)(3)(A)&(B) were made pursuant to HSWA. The revisions to 261.2(c)(3), 261.2(c)(4)/Table, 261.2(e)(1)(iii), first paragraph 261.4(a)(16), 261.4(a)(17) introductory paragraph, 261.4(a)(17)(v), and 261.4(b)(7)(iii)&(iii)(A) were made relative to non-HSWA authority. Those provisions designated as HSWA are identified by a " \ddot{E} " (diamond symbol) in this checklist.

					STATE	ANALOG	IS:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADER IN SCOPE
	PART 261	- IDENTIFICATION AND	LISTING OF HAZARD	DOUS V	VASTE	-	
		SUBPART A	- GENERAL				
	DEFINITION OF SOLID	WASTE					
1,†′	replace reference to "40 CFR 261.4(a)(15)" with "40 CFR 261.4(a)(17)"	261.2(c)(3)					
†'	in heading of column 3 of Table 1 replace "261.4(a)(15)" with "261.4(a)(17)"	261.2(c)(4)/Table					
2,†′	reinsert language at beginning of paragraph: "Returned to the original processno placement on land"; in the existing sentence, replace reference to "§ 261.4(a)(15)" with "§ 261.4(a)(17)"	261.2(e)(1)(iii)					
	EXCLUSIONS				-	-	
3,4,†′	redesignate first paragraph 261.4(a)(16) as 261.4(a)(17)	first paragraph 261.4(a)(16)					

					STATE	ANALOG	IS:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADER IN SCOPE
3,†′	insert "or by beneficiation" after "by mineral processing"	261.4(a)(17) intro					
3,†′	insert "non" before "land- based units"	261.4(a)(17)(v)					
†'	insert "or with normal mineral processing raw materials" after "beneficiation raw materials"	261.4(b)(7)(iii)					
ť	insert "or normal mineral processing raw materials after "beneficiation raw materials"	261.4(b)(7)(iii)(A)					
	PART 262 - STAN	DARDS APPLICABLE TO	GENERATORS OF H	AZARI	DOUS	WASTI	Ŧ
		SUBPART C - PRE-TRAN	SPORT REQUIREMEN	NTS			
	ACCUMULATION TIME						
Ë,†′	replace reference "40 CFR 268.7(a)(4)" with "40 CFR 268.7(a)(5)"	262.34(d)(4)					
		PART 268 - LAND DISP	POSAL RESTRICTION	S			
		SUBPART A	- GENERAL				
	DEFINITIONS APPLICAL	BLE IN THIS PART					
Ë	at end of paragraph add "Any deliberate mixing of prohibited hazardous waste with debris that changes its treatment classification (i.e., from waste to hazardous debris) is not allowed under the dilution prohibition in § 268.3."	268.2(h)					

					STATE	ANALOG	IS:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADER IN SCOPE
Ë,†′	add "Natural Resources" before "Conservation Service"; at end of paragraph add "Any deliberate mixing of prohibited hazardous waste with soil that changes its treatment classification (i.e., from waste to contaminated soil) is not allowed under the dilution prohibition in Sec. 268.3."	268.2(k)					
	TESTING, TRACKING , A AND DISPOSAL FACILIT	AND RECORDKEEPING R FIES	EQUIREMENTS FOR (GENER	ATOR	S, TRE	ATERS,
Ë,†′ 5	in the "Generator Paperwork Requirements Table" revise entry 1. by adding a " U" in columns 1, 2 and 4; revise entry 3. by adding a " U" in column 2; and revise entry 8. by adding a "U" in column 2	268.7(a)(4)/Table					
Ë	in the "Treatment Facility Paperwork Requirements Table" revise entry 1. by placing a " U " in the column titled § 268.7(b)	268.7(b)(3)(ii)\Table					

					STATE	ANALOG	IS:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADER IN SCOPE
Ë,†'	remove "required" from before "method of treatment"; insert ", or § 268.49, and," after "method of treatment)"; remove "are reasonably expected to" before "contain underlying"; insert "if these wastes" before "are treated on- site"; insert "or 268.49" after "40 CFR 268.40"; remove "universal" from before "treatment standards."	268.7(b)(4)(iv)					
	SPECIAL RULES REGAR	DING WASTES THAT EX	HIBIT A CHARACTEI	RISTIC			
Ë,†′	replace reference to "§268.7(b)(5)" with "§268.7(b)(4)"	268.9(d)(2) intro					
Ë,†′	replace "but does not treat" with "but does not meet standards applicable to"; replace reference to "§ 268.7(b)(5)(iv)" with 268.7(b)(4)(iv)"	268.9(d)(2)(i)					
		SUBPART D - TREAT	MENT STANDARDS				
	APPLICABLIITY OF TRE	EATMENT STANDARDS					
Ë,6	revise first 268.40(i); replace "Zinc-containing fertilizers" with "Zinc micronutrient fertilizers"	first 268.40(i)					
Ë,6	redesignate second 268.40(i) as 268.40(j)	second 268.40(i)					

				STATE ANALOG IS:		IS:	
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADER IN SCOPE
Ë,6	redesignated from second 268.40(i)	268.40(j)					
Ë,7	revise the entries for K088, K156, K159, P194, U404 and U408, and footnotes 8 and 11 to read as follows:	268.40/Table					

TREATMENT STANDARDS FOR HAZARDOUS WASTES [Note: NA means not applicable]

		Regulated Hazardous	Constituent	Wastewaters	Nonwastewaters
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration in mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
K088	Spent potliners from	Acenaphthene	83-32-9	0.059	3.4
	primary aluminum reduction.	Anthracene	120-12-7	0.059	3.4
		Benz(a)anthracene	56-55-3	0.059	3.4
		Benzo(a)pyrene	50-32-8	0.061	3.4
		Benzo(b)fluoranthene	205-99-2	0.11	6.8
		Benzo(k)fluoranthene	207-08-9	0.11	6.8
		Benzo(g,h,i)perylene	191-24-2	0.0055	1.8
		Chrysene	218-01-9	0.059	3.4
		Dibenz(a,h)anthracene	53-70-3	0.055	8.2
		Fluoranthene	206-44-0	0.068	3.4
		Indeno(1,2,3,-c,d)pyrene	193-39-5	0.0055	3.4
		Phenanthrene	85-01-8	0.059	5.6
		Pyrene	129-00-0	0.067	8.2
		Antimony	7440-36-0	1.9	1.15 mg/l TCLP
		Arsenic	7440-38-2	1.4	26.1 mg/l TCLP
		Barium	7440-39-3	1.2	21 mg/l TCLP
		Beryllium	7440-41-7	0.82	1.22 mg/l TCLP
		Cadmium	7440-43-9	0.69	0.11 mg/l TCLP
		Chromium (Total)	7440-47-3	2.77	0.60 mg/l TCLP
		Lead	7439-92-1	0.69	0.75 mg/l TCLP
		Mercury	7439-97-6	0.15	0.025 mg/l TCLP
		Nickel	7440-02-0	3.98	11 mg/l TCLP
		Selenium	7782-49-2	0.82	5.7 mg/l TCLP
		Silver	7440-22-4	0.43	014 mg/l TCLP
		Cyanide (Total) ⁷	57-12-5	1.2	590

TREATMENT STANDARDS FOR HAZARDOUS WASTES [Note: NA means not applicable]

		Regulated Hazardous	Constituent	Wastewaters	Nonwastewaters
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration in mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
		Cyanide (Amenable) ⁷	57-12-5	0.86	30
		Fluoride	16984-48-8	35	NA
K156	Organic waste (including	Acetonitrile	75-05-8	5.6	18
	heavy ends, still bottoms, light ends, spent solvents,	Acetophenone	96-86-2	0.010	9.7
	filtrates, and decantates)	Aniline	62-53-3	0.81	14
	from the production of carbamates and carbamoyl	Benomyl	17804-35-2	0.056	1.4
	oximes. ¹⁰	Benzene	71-43-2	0.14	10
		Carbaryl	63-25-2	0.006	0.14
		Carbenzadim	10605-21-7	0.056	1.4
		Carbofuran	1563-66-2	0.006	0.14
		Carbosulfan	55285-14-8	0.028	1.4
		Chlorobenzene	108-90-7	0.057	6.0
		Chloroform	67-66-3	0.046	6.0
		o-Dichlorobenzene	95-50-1	0.088	6.0
		Methomyl	16752-77-5	0.028	0.14
		Methylene chloride	75-09-2	0.089	30
		Methyl ethyl ketone	78-93-3	0.28	36
		Naphthalene	91-20-3	0.059	5.6
		Phenol	108-95-2	0.039	6.2
		Pyridine	110-86-1	0.014	16
		Toluene	108-88-3	0.080	10
		Triethylamine	121-44-8	0.081	1.5
*	*	*	*		*
K159	Organics from the treatment	Benzene	71-43-2	0.14	10
	of thiocarbamate wastes. 10	Butylate	2008-41-5	0.042	1.4
		EPTC (Eptam)	759-94-4	0.042	1.4
		Molinate	2212-67-1	0.042	1.4
		Pebulate	1114-71-2	0.042	1.4
		Vernolate	1929-77-7	0.042	1.4
*	*	*	*		*
P194	Oxamyl	Oxamyl	23135-22-0	0.056	0.28
*	*	* *	*		*
U404	Triethylamine	Triethylamine	121-44-8	0.081	1.5
*	*	* *	*		*
U408	2,4,6-Tribomophenol	2,4,6-Tribomophenol	118-79-6	0.035	7.4

TREATMENT STANDARDS FOR HAZARDOUS WASTES [Note: NA means not applicable]

		Regulated Hazardous	Constituent	Wastewaters	Nonwastewaters
Waste Code	Waste Description and Treatment/Regulatory Subcategory ¹	Common Name	CAS ² No.	Concentration in mg/l ³ ; or Technology Code ⁴	Concentration in mg/kg ⁵ unless noted as "mg/l TCLP"; or Technology Code
*	*	*		*	*
		*	*		

¹ The waste descriptions provided in this table do not replace waste descriptions in 40 CFR 261. Descriptions of Treatment/Regulatory Subcategories are provided, as needed, to distinguish between applicability of different standards. CAS means Chemical Abstract Services. When the waste code and/or regulated constituents are described as a combination of a

chemical with its salts and/or esters, the CAS number is given for the parent compound only.

Concentration standards for wastewaters are expressed in mg/l and are based on analysis of composite samples.

All treatment standards expressed as a Technology Code or combination of Technology Codes are explained in detail in § 268.42 Table 1--Technology Codes and Descriptions of Technology-Based Standards.

Except for Metals (EP or TCLP) and Cyanides (Total and Amenable) the nonwastewater treatment standards expressed as a concentration were established, in part, based upon incineration in units operated in accordance with the technical requirements of 40 CFR Part 264, Subpart O, or Part 265, Subpart O, or based upon combustion in fuel substitution units operating in accordance with applicable technical requirements. A facility may comply with these treatment standards according to provisions in § 268.40(d). All concentration standards for nonwastewaters are based on analysis of grab samples.

Both Cyanides (Total) and Cyanides (Amenable) for nonwastewaters are to be analyzed using Method 9010 or 9012, found in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW-846, as incorporated by reference in 40 CFR 260.11, with a sample size of 10 grams and a distillation time of one hour and 15 minutes.

8 These wastes, when rendered nonhazardous and then subsequently managed in CWA, or CWA-equivalent systems are not subject to treatment standards. (See § 268.1(c) (3) and (4)).

¹⁰ The treatment standard for this waste may be satisfied by either meeting the constituent concentrations in this table or by treating the waste by the specified technologies: combustion, as defined by the technology code CMBST at §268.42 Table 1 of this Part, for nonwastewaters; and, biodegradation as defined by the technology code BIODG, carbon adsorption as defined by the technology code CARBN, chemical oxidation as defined by the technology code CHOXD, or combustion as defined as technology code CMBST at § 268.42 Table 1 of this part, for wastewaters.

¹¹ For these wastes, the definition of CMBST is limited to: (1) combustion units operating under 40 CFR 266, (2) combustion units permitted under 40 CFR Part 264, Subpart O, or (3) combustion units operating under 40 CFR 265, Subpart O, which have obtained a determination of equivalent treatment under 268.42(b).

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			STATE ANALOG IS:		S:	
FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
UNIVERSAL TREATMEN	NT STANDARDS					
 EXAMPLE AND ALL TREATIONES Badd footnote number 6 in column one, under the heading Regulated Constituents/Common Name, after the following chemical names: "Aldicarb sulfone", "Barban," "Bendiocarb," "Barban," "Bendiocarb," "Barban," "Bendiocarb," "Benomyl," "Butylate," "Carbofuran," "Carbofuran," "Carbofuran," "Carbofuran- phenol," "Carbosulfan," "Carbosulfan," "Carbosulfan," "Carbosulfan," "Carbosulfan," "Carbosulfan," "Carbosulfan," "Carbosulfan," "Corbosulfan," "Carbosulfan," "Methiocarbamates (total)," "EPTC," "Formetanate hydrochloride," "Methiocarb," "Methomyl," "Metolcarb," "Methomyl," "Metolcarb," "Methomyl," "Metolcarb," "Molinate," "Oxamyl," "Pebulate," "Physostigmine salicylate," "Propoxur," "Prosulfocarb," "Thiophanate-methyl," "Triallate," "Triethylamine," and "Vernolate;"; add footnote 6 "6. Between August 26, 1998 and March 4, 1999, these constituents are not "underlying hazardous constituents" as defined in 						

					STATE A	NALOG I	S:
	FEDERAL REQUIREMENTS	FEDERAL RCRA CITATION	ANALOGOUS STATE CITATION	EQUIV- ALENT	LESS STRI N- GENT	MORE STRI N- GENT	BROADE R IN SCOPE
	ALTERNATIVE LDR TR	EATMENT STANDARDS I	FOR CONTAMINATE	D SOIL			
Ë,†'	no revision made	268.49(c)(3) intro					
Ë,†′	replace "also contains analyzable constituents," with "contains only analyzable and nonanalyzable organic constituents,"; replace "treatment of those analyzable constituents" with "treatment of the analyzable organic constituents"	268.49(c)(3)(A)					
Ë,†'	replace "method specified" with "method(s) specified"	268.49(c)(3)(B)					

- **†i** These changes are conditionally optional. If the State has adopted the optional revisions to the recordkeeping and paperwork requirements in Revision Checklists 157, 167 C, and 167 D, then the State is required to adopt the changes to 261.2(c)(3), 261.2(c)(4)/Table, 261.2(e)(1)(iii), 261.4(a)(16), 261.4(b)(7), 262.34(d)(4), 268.7(a)(4)/Table (entries 1 and 3), 268.7(b)(3)(ii)/Table, 268.9(d)(2) intro, and 268.9(d)(2)(i) in this checklist. Also, if the State has adopted the optional treatment standards for contaminated soils in Revision Checklists 167 B, then the State is required to adopt the changes to 268.2(k), 268.7(a)(4)/Table (entry 8), 268.7(b)(4)(iv), and 268.49 in this checklist.
- The rule addressed by Revision Checklist 167D (63 FR 28556; May 26, 1998) added the parenthetical "(except as provided under 40 CFR 261.4(a)(15))" at the end of the first sentence and the second sentence in 261.2(c)(3). The addition of the second parenthetical was set aside by the U.S. D.C. Circuit Court of Appeals in <u>Association of Battery Recyclers, Inc. v. EPA</u>, 208 F.3d 1047 (D.C. Cir. 2000). In that decision, the Court held that the expansion of the definition of solid waste to include materials based on how they are stored prior to reclamation is not appropriate. Revision Checklist 167 D and this checklist were revised to reflect this court decision. A State that elected to include the parenthetical to the second sentence should indicate that its analog is broader in scope as explained in the summary for this checklist and should replace "40 CFR 261.4(a)(15)" to "40 CFR 261.4(a)(17)" in the second parenthetical to conform with renumbering introduced in this checklist.
- ² The May 26, 1998 (CL 167D) rule inadvertently removed the provision language at § 261.2(e)(1)(iii) and replaced it with the additional language which was intended to be added at the end of the paragraph. The original language has been reinserted by Revision Checklist 179 at the beginning of the paragraph, and the May 26, 1998 (CL 167D) addition (now the last sentence of the provision) has been revised to indicate the

³ Paragraph 261.4(a)(16) was added by 763 FR 28556(May 26, 1998), Revision Checklist 167 D). A second paragraph 261.4(a)(16) was added lartifications the Treatment Standard Standard Barter 1998), Revision Checklist 168; 63 FR 33782) rule. The first paragraph 261.4(a)(16) was redesignated by this checklist as 261.4(a)(17). correct internal reference.

- A typographical error exists at the redesignated 261.4(a)(17)(iii). The internal reference "paragraph (a)(15)(iv)" should be "paragraph (a)(17)(iv)".
- ⁵ The changes to entry 8 in the 268.7(a)(4)/Table are only applicable to State's that adopted the optional requirements for contaminated soils in Revision Checklist 167 B. The other changes to this table should be made by States that have adopted the optional revisions to the recordkeeping and paperwork requirements in Revision Checklists 157 and 167C.
- ⁶ Paragraph 268.40(i) was added by 63 <u>FR</u> 46332-46334 (August 31, 1998, Revision Checklist 170) and a second paragraph 268.40(i) was added 63 <u>FR</u> 47410-47418 (September 4, 1998, Revision Checklist 171). The instructions for the 64 <u>FR</u> 25408 rule (May 11, 1999, Revision Checklist 179) indicate that the first paragraph (i) is redesignated as 268.40(j) and that paragraph (i) is revised. The rule addressed by Revision Checklist 179 should have redesignated the <u>second</u> paragraph (i) as (j) and revised the first paragraph (i). The October 20, 1999 final rule (64 <u>FR</u> 56469; Revision Checklist 183) corrected this error by replacing paragraph (j) with the old second paragraph (i).
- ⁷ Revision Checklist 165 added U408 to the 268.40 table. Revision Checklist 165 has been withdrawn, and the U408 entry removed; therefore, only States retaining the Revision Checklist 165 provisions should made the Revision Checklist 179 revisions to the U408 entry. The May 11, 1999 rule (64 <u>FR</u> 25416, Revision Checklist 179, contains typographical errors at the K156 and K159 entries. These entries should not include footnote 10.
- ⁸ 63 <u>FR</u> 47410-47418 (September 4, 1998, Revision Checklist 171) incorrectly removed footnote 6 from 268.48(a)/table. The footnote has been reinserted by Revision Checklist 179 (May 11, 1999, 64 <u>FR</u> 25408).

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